

# Work Order ID 105229

Monday, July 29, 2013 1:48:32 PM

**\*105229\***

Ship ASAP

Page 1

Item ID: D412-702-021  
 Revision ID:  
 Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Start Date: 7/29/2013 Start Qty: 1.00 **\*1\***  
 Required Date: 8/1/2013 Req'd Qty: 1.00 **\*1\***

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: *MF* Date: *13-7-29*  
 QC: Date:

Tooling:

Date:

SPC (Y/N):

Date:

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
N/A	Rev N/A

100		0.00							
<b>*100*</b>	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Photocopy bluefile and create labels per PPP D412-702-021 CHG003								

110	Pick Kit	0.00							
<b>*110*</b>									
Packaging	Memo	0.00							
Packaging									

120	QC4- 100% Inspect kits for completeness	0.00							
<b>*120*</b>									
QC	Memo	0.00							
Quality Control									

13/6/1

DAS 06 9-89

13-07-30

*[Signature]*

13/6/1 DAS 06 9-89

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Item ID: D412-702-021

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Stop **\*NS2\***Start Date: 7/29/2013 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 8/1/2013 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start **\*NR1\***

QC: Date: SPC (Y/N): Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
<b>*130*</b>	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-702-021 Location: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

/ 8 13-08-01

MLJ 13-08-01

MLJ 13-08-01

# Picklist Print

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Work Order ID: 105229

Parent Item: D412-702-021

Parent Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Start Date: 7/29/2013

Required Date: 8/1/2013

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B Removed Manufacturing 05-11-08 JLM  
 IPP Rev:C06.04.03As per DSI9324 JLM  
 IPP rev D 06.12.14 per ecn 871 EC  
 IPP Rev:E 07-03-14 As per DSI 9351 JLM  
 IPP Rev:F 07-07-28 As per Rev E JLM Verified By:ec IPP Rev.G 11.05.31 DSI  
 9559 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

ANK-1BA

Bolt

Purchased

No

120

Each

2,553.0000

4

4

20

Location

Loc Qty

Loc Code

FG

20

122808

20

Return2012

8

122416

8

ST511

1000

m126193

1000

ST513

17

111925

8

121652

4

125388

5

ST514

1508

122993

13

123900

10

m125709

1485

125709

ANK-20A

Bolt

Purchased

No

120

Each

571.0000

8

8

20

13-07-30

Location

Loc Qty

Loc Code

GA

51

116419

51

ST516

300

m126193

300

ST517

220

121060

8

124215

212

124215

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Work Order ID: 105229

Parent Item: D412-702-021

Parent Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Start Date: 7/29/2013

Required Date: 8/1/2013

Start Qty: 1.00

Required Qty: 1.00

AN935J  
BOLT

Purchased No

120 Each 304.0000

4

4

70

12

## Location

## Loc Qty

## Loc Code

ST355

147

120562

147

ST514

157

120562

157

120 Each 0.0000

20

120562

124778

20

70

12

AN960JD416

Washer

NAS1149D0463J

Purchased

No

D3195-041

Bracket

Manufactured

No

120 Each 18.0000

2

2

70

12

## Location

## Loc Qty

## Loc Code

ST246A

18

101668

16

102558

2

120 Each 22.0000

2

2

70

12

D3195-043

Bracket

Manufactured

No

## Location

## Loc Qty

## Loc Code

ST246A

22

100924

2

102487

14

102559

6

120 Each 8.0000

1

1

70

13-07-30

D3196-1

Bar

Manufactured

No

## Location

## Loc Qty

## Loc Code

ST259

8

100721

4

102560

4

100721

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Shop Packet Print

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Page 3

Work Order ID: 105229

Parent Item: D412-702-021

Parent Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Start Date: 7/29/2013

Required Date: 8/1/2013

Start Qty: 1.00

Required Qty: 1.00

D3196-3  
Bar

Manufactured No

120 Each 4.0000

Location

Loc Qty

Loc Code

ST259

4

102561  
88150

2  
2

D3196-4  
Bar

Manufactured No

120 Each 3.0000

Location

Loc Qty

Loc Code

ST259

3

102562  
81537  
88225

1  
1  
1

D3197-041  
Bar

Manufactured No

120 Each 4.0000

Location

Loc Qty

Loc Code

ST259

4

102557

4

D3198-1  
Fitting

Manufactured No

120 Each 17.0000

Location

Loc Qty

Loc Code

ST246A

17

102445

17

D3268-J  
Placard

Manufactured No

120 Each 6.0000

Location

Loc Qty

Loc Code

ST246A

6

100801

6

D3546-L  
Clip

Manufactured No

120 Each 0.0000

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Work Order ID: 105229

Parent Item: D412-702-021

Parent Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Start Date: 7/29/2013

Required Date: 8/1/2013

Start Qty: 1.00

Required Qty: 1.00

~~D3551-11~~

Hook and Loop Tie

Manufactured No 120 Each 7.0000

Location

Loc Qty

Loc Code

ST246A

7

~~102344~~

7

~~D412-702-040~~

Grömmet

Manufactured No 120 Each 3.0000

Location

Loc Qty

Loc Code

FG

3

104714

3

~~D4387-041~~

Harness Assy

Manufactured No 120 Each 19.0000

Location

Loc Qty

Loc Code

ST263

19

101386

18

~~94845~~

1

D4387-043

Harness Assembly

Manufactured No 120 Each 8.0000

Location

Loc Qty

Loc Code

ST265

8

~~102027~~

8

~~13~~

13

78105238

6x 102344

~~11~~

1

~~1104714~~

9

1

87701386  
1x 94845

~~4~~

4

13-07-30

102037

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# Picklist Print

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Work Order ID: 105229

Parent Item: D412-702-021

Parent Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Start Date: 7/29/2013

Required Date: 8/1/2013

Start Qty: 1.00

Required Qty: 1.00

MS210421A

Locknut

Purchased

No

120

Each

6,766.0000

12

12

## Location

## Loc Qty

## Loc Code

FP001

50

122452

38

8182

12

ST314

10

m125708

10

ST506

11

121444

11

st507

223

116507

18

125535

47

m126073

158

ST509

4000

m126275

4000

ST510a

2250

m126333

2250

ST518

222

124231

222

126073

MS24694-S152

Screws

Purchased

No

120

Each

49.0000

8

8

## Location

## Loc Qty

## Loc Code

ST304

49

m125807

49

MS24694-S154

Screw

Purchased

No

120

Each

24.0000

8

8

## Location

## Loc Qty

## Loc Code

ST304

24

m125807

24

125807

125807

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QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
X						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
	X					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		X				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
			X			D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4-point
				X		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
1	1		1	1		D412-702-069	GROMMET KIT
2	2					D3195-041	BRACKET
2	2					D3195-043	BRACKET
1	1			1		D3196-1	BAR
			1			D3196-3	BAR
			1			D3196-4	BAR
2	2					D3197-041	BAR
4		4				D3198-1	FITTING
2	2					D3268-1	PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
2	2					D3546-1	CLIP
4		4				AN4-5A	BOLT
4	4					AN4-13A	BOLT
8		8				AN4-20A	BOLT
20		20				AN960JD416	WASHER (OR NAS1149D0463J)
12		12				MS21042L4	NUT (OR MS21042-4)
8	2		6	2		MS24694-S152	SCREW
8	2		6	2		MS24694-S154	SCREW

QTY -069	Part Number	Description
X	D412-702-069	GROMMET KIT
24	D3619-2	GROMMET
1	D3619-2T1	HOLE PUNCH
1	D3619-2T2	STRIKER BLOCK
1	D3619-2T3	PUNCH
1	D3619-2T4	DIE



**REFERENCE**  
**DART SERVICE INSTRUCTION**

TO AMEND IIN-D412-702-1 REV. A,  
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS  
REF. TCCA STC: SH04-7  
REF. FAA STC: SR01997NY  
REF. EASA STC: EASA.IM.R.S.00710

**PURPOSE**

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

**CHANGE**

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

Old Harness P/N	Used On	New Harness P/N	Effectivity
D3446-041	D412-702-021	D4387-041	CHG 003 and subsequent
	D412-702-023		CHG 002 and subsequent
	D412-702-027		
	D412-702-029		
D3446-043	D412-702-021	D4387-043	CHG 003 and subsequent
	D412-702-025		CHG 002 and subsequent

Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY: D. Shepherd  
D. SHEPHERD (DE # 02)

DATE: 11.05.09  
CERT. NO.: SH04-7  
ISSUE NO.: 3

A	NEW ISSUE	MB	11.05.09
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9559	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		<b>HARNESS CHANGE</b>	NTS
DATE	11.05.09	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

**Work Order ID 105229**

Monday, July 29, 2013 1:48:32 PM

**\*105229\***

Page 1

Item ID: D412-702-021

Accept

**\*N900040100\*** Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Shoulder Harness 4 Point Attachment 13 Man Configuration

Start Date: 7/29/2013 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 8/1/2013 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

JMF

Date: 7-29-2013

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

N/A

Rev N/A

100

0.00

**\*100\***

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D412-702-021 CHG003

110

Pick Kit

0.00

**\*110\***

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

**\*120\***

QC

Memo

0.00

Quality Control

Ship 11-11-11

MLJ 13-07-30